GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:6360
ANSWERED ON:12.04.2017
Indo-Canadian Science Programme on Clean Water Technology
Pathak Smt. Riti

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the funds allocated for Indo-Canadian Science Programme focussed on clean water technology;
(b) the outcome of technologies adopted for ensuring supply of clean drinking water and effective water management;
(c) whether the said technology has been put to use in India; and
(d) if not, the reasons therefor and the time by which the said technology is likely to be put to use in India?

Answer

(a) Yes, Madam. The Department of Biotechnology and Department of Science and Technology, Ministry of Science and Technology are collaborating with The India-Canada Centre for Innovation Multidisciplinary Partnerships to Accelerate Community Transformation and Sustainability (IC-IMPACTS), to promote multidisciplinary research partnerships. Five projects addressing the issue of Clean Water Technologies are being implemented by the Departments at the total cost of Rs. 572 lakhs with matched funding from Canada.

(b) The following technologies are being developed and envisaged as outcomes:
i) Biosensors for detection of toxins:-impedance-based handheld biosensors for assessment of the water quality and a nanoparticle based water treatment system to eliminate toxins and microorganisms in water. Toxins which will be detected are cyanotoxin (microcystins, anatoxins) and microorganisms (Enterococcus, Salmonella, Staphylococcus).
ii) Heavy metal detection and removal :
Plastic cartridges for color based test monitoring kit for detection of multiplex heavy metal
Developing fixed bed biochar columns to remove heavy metals from waste water
iii) Biorecovery from waste water (waste to wealth) :- Integrated pilot-scale 915 MHz MW-AOP for advanced anaerobic digestion system for resource recovery
iv) Survey to identify and explore alternatives in domestic water management:- technology and financial appropriateness of water and wastewater infrastructure in selected cities of India
(c) These Technologies are currently being developed with the aim that these technologies will be implemented in India.

(d) Prior art is available for the technologies being developed. The technologies are being adapted and modified for Indian conditions. Technologies developed will be taken for feasibility studies and shall be implemented on pilot scale within two years.